BULLETIN

OF THE INSTITUTE OF METALS

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INSTITUTE NEWS

Representatives on Other Bodies

MR. W. S. GIFFORD has been appointed as the Institute's representative on a Committee on the Application of Electricity to Industrial Process Heating, convened by the Institution of Electrical Engineers.

DR. IVOR JENKINS has been appointed as representative of the Institute on the Advisory Council of the City and Guilds of London Institute, *vice* Dr. F. A. Fox.

DR. D. TABOR has been appointed as the Institute's representative on British Standards Institution Panel MEE/37/9/1: Rockwell Hardness Test.

MAJOR P. LITHERLAND TEED has been appointed as one of the Institute's representatives on British Standards Institution Committee NFE/-/-: Non-Ferrous Metals Industry Standards, *vice* Dr. F. A. Fox.

"Metallurgical Abstracts" Volumes Wanted

The Institute will pay £1 each for bound volumes, in good condition, of *Metallurgical Abstracts* 1940 (Vol. 7), 1941 (Vol. 8), 1942 (Vol. 9), 1943 (Vol. 10).

The following monthly parts of the *Journal* and *Metallurgical Abstracts* are also urgently required, and the Institute will pay 7*s*. 6*d*. for each copy in good condition:

1941: July, Aug.
1942: July, Aug., Oct.
1943: May, July, Aug., Sept., Oct.

Copies offered for sale should be addressed to the Secretary.

Election of Members

The following 12 Ordinary Members, 1 Junior Member, and 7 Student Members were elected on 19 May 1953:

As Ordinary Members

BULOW, Carl Lawrence, Corrosion Metallurgist, Bridgeport Brass Company, 30 Grand Street, Bridgeport 2, Conn., U.S.A.

CHANG, Hsing Chien, M.S., Sc.D., D.I.C. Research Staff, Department of Metallurgy, Massachusetts Institute of Technology, Cambridge 39, Mass., U.S.A.

VAN DER GLAS, Bastiaan Gerrit, Chief, Material Testing Laboratory, K.L.M. (Royal Dutch Airlines), Schipol, Netherlands.

HYMAN, Edward David, Met.E., Metallurgical Engineer, National Bearing Division, American Brake Shoe Company, Manchester Avenue, St. Louis, Mo., U.S.A.

MCLELLAN, David Smith, B.S., Plant Metallurgist, Reynolds Metals Company, Phoenix, Ariz., U.S.A.

RILEY, Hilary Francis, B.Sc., A.R.S.M., Manager and Metallurgist, Beryllium and Copper Alloys, Ltd., 47 Victoria Street, London, S.W.1.

SEYBOLT, Alan Upson, B.S., Ph.D., Research Associate, Metallurgy Department, Research Laboratory, General Electric Company, Schenectady, N.Y., U.S.A.

TAYLOR, Alan Wright, B.Sc., A.I.M., Divisional Metallurgist, British Electricity Authority, South Wales Division, B.E.A. House, Twyn-Fedwen Road, Gabalfa, Cardiff.

TAYLOR, *Professor* Howard Floyd, M.S., Professor of Mechanical Metallurgy, Massachusetts Institute of Technology, Cambridge 39, Mass., U.S.A.

WESTBROOK, Jack Hall, M.Met.E., Sc.D., Research Associate, Research Laboratory, General Electric Company, Schenectady, N.Y., U.S.A.

ZULLIG, Alfons J., Dipl.-Ing., Director of Operations—Staff, Aluminium, Ltd., Montreal, Que., Canada.

ZUREK, Emil, M.C., Dr.-Ing., M.I.Mech.E., Managing Director and Development Engineer, John Yuille (Metal Works) Ltd., Hillington Estate, Glasgow, S.W.2.

As Junior Member

LENHART, Robert Eugene, B.Met.E., Research Assistant, Metallurgy Department, Research Laboratory, General Electric Company, Schenectady, N.Y., U.S.A.

As Student Members

CUFF, Frank B., Jr., B.Met.E., Postgraduate Student of Metallurgy, Massachusetts Institute of Technology, Cambridge 39, Mass., U.S.A.

EDMONDSON, Bryan, B.Sc., Postgraduate Student of Metallurgy, University of Birmingham.

EVANS, John L., Student of Metallurgy, University of Sheffield.

HOWLETT, Brian Wilfred, B.Sc., Postgraduate Student of Metallurgy, University of Birmingham.

MASSALSKI, Tadeusz Bronislaw, B.Sc., Postgraduate Student of Metallurgy, University of Birmingham.

SHEIKH, A. M., M.Sc., 10 Macoma Terrace, Plumstead Common, London, S.E.18.

WERNER, Fred Eugene, Jr., S.B., Instructor and Graduate Student, Metallurgy Department, Massachusetts Institute of Technology, Cambridge 39, Mass., U.S.A.

PERSONAL NOTES

Mr. J. N. Auld has returned to Australia, where he will be working at the Defence Research Laboratories, Maribyrnong, Victoria.

Mr. J. E. Chard has resigned from the Royal Naval Scientific Service to take up an appointment at the Canadian Armament Research and Development Establishment at Valcartier, Quebec.

Mr. E. S. Cornwall has been appointed General Manager and Chief Engineer of the Southern Electric Authority of Queensland, Brisbane, Australia.

Mr. J. F. Ewing, has taken a post in the Research Department of The Babcock and Wilcox Company, Tubular Products Division, Beaver Falls, Pa., U.S.A.

Dr. P. T. Gilbert has received the 1953 Francis Mills Turner Award of the Electrochemical Society for a paper on "The Nature of Zinc Corrosion Products".

Mr. W. L. Hall has resigned his position as Chief Liaison Officer to the British Non-Ferrous Metals Research Association in order to become General Manager to General Galvanizers, Ltd., Wolverhampton.

Mr. R. D. Hamer, Vice-President and Director of Aluminium Laboratories, Ltd., has been elected President of the Aluminium Development Association for the year 1953–54.

Mr. T. B. V. Hirst has been appointed Chairman and Managing Director of Tekon, Ltd., 17 Broadstone Place, Dorset Street, London, W.1.

Dr. Børge Lunn has been appointed Assistant Technical Director of the Nordiske Kabel- og Traadfabriker (Northern Cable and Wire Works), Copenhagen.

Mr. E. C. Mantle has been appointed Chief Liaison Officer to the British Non-Ferrous Metals Research Association, in succession to Mr. W. L. Hall.

Mr. B. Podezaski has been appointed Managing Director of the steelworks Crisoldinie E.N., Quilmes, Province of Buenos Aires, Argentina.

Mr. M. L. Samways has taken up an appointment as Development Engineer with The Dowsett Engineering and Construction Co., Tallington, Stamford, Lincs.

Mr. B. N. H. Thornely, Chief Engineer to the Northern Aluminium Co., Ltd., has been appointed a Director of the Company.

Deaths

The Editor regrets to announce the deaths of:

Mr. William Waterhouse Gibbins, M.A., Chairman of The Birmingham Battery and Metal Company, Ltd., Selly Oak, Birmingham, on 5 May 1953. He was an Original Member of the Institute.

Sir Thomas Kirke Rose, D.Sc., A.R.S.M., on 10 May 1953. Sir Thomas served as a Member of Council of the Institute from 1914 to 1916, and as a Vice-President from 1916 to 1927. He joined the Royal Mint in 1890, was appointed Chemist and Assayer in 1902, and retired in 1926. He was 87 years of age.

OBITUARY

Mr. G. B. Harris

Geoffrey Bastion Harris, who died on 8 March as the result of a road accident, was educated at Redruth County School. He obtained an Exhibition at St. Catharine's College, Cambridge, and was placed in Class I in Tripos Part I, and Class II in Part II in Physics. On leaving the University in 1946, he was appointed an Experimental Officer in the National Physical Laboratory, and within a year was promoted to the Scientific Officer Grade. He worked in the Metallurgy Division, almost exclusively on the metallography of uranium alloys, and made valuable observations on dimensional changes in relation to orientation textures in uranium. He also worked on preferred orientation in uranium, and published a paper on this subject in 1952. In 1950 he obtained a B.I.S.R.A. Bursary for work at Oxford on the freezing and melting points of iron alloys, and one paper is to appear shortly in the *Journal* of the Iron and Steel Institute.

Mr. Harris was a man of exceptional ability, a brilliant designer of apparatus, and a constant source of help to his colleagues at Oxford. His linguistic powers were considerable, and he could read French, German, and Russian with ease. His work on the thermal analysis of iron alloys is probably the most accurate which has yet been carried out, and his tragic death means the loss of one of the most promising of the younger generation of metal physicists.

W. H.-R.

JOINT ACTIVITIES

Capper Pass Awards

The Capper Pass Awards Adjudicating Committee, on behalf of the Councils of the Institution of Mining and Metallurgy and the Institute of Metals, have made the following awards for papers published in 1952 in the *Transactions of the Institution of Mining and Metallurgy* and the *Journal of the Institute of Metals*.

(i) Fifty Pounds to Mr. Edwin Davis, M.Sc., F.I.M., and Mr. S. G. Temple, M.Sc., A.I.M., for their paper on "Batch and Continuous Annealing of Copper and Copper Alloys" (*J. Inst. Metals*, 1951–52, **80**, 287–296).

(ii) Fifty Pounds to Mr. C. P. Paton, B.Eng., for his paper on "Batch Thermal Treatment of Light Alloys" (*J. Inst. Metals*, 1951–52, **80**, 311–322).

(iii) Fifty Pounds to Dr. E. C. Ellwood, F.I.M., and Mr. T. A. Henderson, B.Sc., for their paper on "Some Exploratory Experiments on the Formation and Control of Magnetite During Copper-Smelting Operations" (*Trans. Inst. Min. Met.*, 1952, **62**, 55–65).

(iv) Fifty Pounds to Mr. P. M. J. Gray, B.Sc., A.R.S.M., for his paper on "The Production of Pure Cerium Metal by Electrolytic and Thermal-Reduction Processes" (*Trans. Inst. Min. Met.*, 1952, **61**, 141–170).

(v) Twenty-Five Pounds to Mr. E. A. Hontoir, B.Sc., A.I.M., for his paper on "Determination of Sulphur in Iron Pyrites" (*Trans. Inst. Min. Met.*, 1952, **62**, 95–107).

Terms of Capper Pass Awards

The Capper Pass Awards, which are made annually from a sum of £200 placed each year at the disposal of the Councils of the Institution of Mining and Metallurgy and of the

Institute of Metals, by the Directors of Capper Pass and Son, Ltd., Bristol, are intended to encourage the publication of papers in the *Transactions of the Institution of Mining and Metallurgy* and in the *Journal of the Institute of Metals* on processes and plant used in extraction metallurgy and on the subject of assaying and of papers on processes and plant used in all branches of the non-ferrous metal industry.

Provided that the Adjudicating Committee is satisfied that the quality and numbers of papers submitted, of the types for which the awards are made, reach a suitable standard:

(*a*) £100 per annum is available for one or more awards to authors of papers on some aspect of non-ferrous extraction metallurgy, including assaying;

(*b*) £100 per annum is available for one or more awards to the authors of papers relating to some processes or plant used in the extraction or fabrication of non-ferrous metals.

The Adjudicating Committee meets annually to consider, on behalf of the two societies, papers published during the past calendar year in the two journals referred to above. It may, at its discretion, make no award or awards of less than the money available, if, in its opinion, the quality or number of papers submitted in any year fails to reach a suitable standard. Any sums not awarded will be carried forward to future years.

The Councils of the Institution of Mining and Metallurgy and of the Institute of Metals hope that the generous offer made by Messrs. Capper Pass and Son, Ltd., will stimulate the writing of many papers of the types for which the awards are to be made. Papers on extraction metallurgy should preferably be submitted to the Institution of Mining and Metallurgy, while those on processes and plant used in the fabrication of non-ferrous metals should preferably be offered to the Institute of Metals. Both societies are prepared to accept papers from non-members.

Authors should note that applications should not be addressed to the Adjudicating Committee requesting that their papers should be considered for the Award of a Premium. All papers published by both societies will be examined by the Committee annually, and notices of the Awards will be published in the journals of the two societies and in the Press.

NEWS OF KINDRED SOCIETIES

Australian Institute of Metals: Symposium on Wire Drawing

The Physical Metallurgy Division of the Melbourne Branch of the Australian Institute of Metals has arranged for a Symposium on the "Theory and Practice of Wire Drawing" to be held in Melbourne on 13 November this year. Seven papers (listed below) have been contributed by Australian and English authors; the papers include original work as well as reviews. They will be preprinted in booklet form, and the meeting in November devoted to discussion; it is hoped that the preprints will be available in time for copies to be sent by air to anyone outside Australia who is interested in contributing to the discussion, which will be printed subsequently. Copies of the preprints and discussion may be ordered from the Hon. Secretary, R. C. Gifkins, Baillieu Laboratory, University of Melbourne, Carlton, N.3, Victoria, Australia. The provisional price in sterling for the preprints is 15*s*. (including postage by air) or 12*s*. (surface mail); the discussion, which will be available in 1954, will probably cost an extra 2*s*. (stg.). Cheques or money orders should be made payable to "The Australian Institute of Metals".

The titles and authors of the papers are as follows:

"Core Wire for the Production of Extruded Metal Arc-Welding Electrodes", by Dr. W. I. Pumphrey.

Some Researches on Wire Drawing", by Professor F. C. Thompson.

"Researches Concerning Wire-Drawing Dies", by J. G. Wistreich.

"The Problem of Rod Diameter", by C. Blazey and V. W. Benjamin.

"Temperature-Lubrication Relations for the Surface of Copper During Wire Drawing", by J. S. Hoggart.

"The Effect of the Surface Temperature Attained During Drawing on the Tensile Strength of Copper Wire", by S. Z. M. Kopczynski and J. S. Hoggart.

"Australian Developments in Drawn, Galvanized Rope Wires", by F. W. Welshman and C. James.

OTHER NEWS

Postgraduate School in Physical Metallurgy

In view of the need of the metallurgical industries for more men with advanced scientific training, the University of Sheffield has established a Post-Graduate School in Physical Metallurgy to provide special tuition in this branch of science.

Applications for admission to courses are invited from:

(*a*) scientists already in industry, holding a degree or equivalent qualification, who have had at least three years' experience and wish to pursue more advanced studies in physical metallurgy:

(*b*) recent graduates in physics, chemistry, or engineering who wish to pursue a metallurgical career.

In certain circumstances applications will also be accepted from recent graduates in metallurgy with little or no industrial experience.

Courses will embrace all aspects of physical metallurgy. Primary consideration will be given to fundamental principles, but every effort will be made to relate these to industrial practice where possible. Courses will be planned to meet the needs of the students enrolled, and will normally be of one or two years' duration. In general, the first-year course will be primarily for non-metallurgists, and lectures, together with courses of practical work, will provide a sound metallurgical background.

The second-year course is intended both for those who have completed the first year and for metallurgists returning from industry. Formal lectures will be largely replaced by study groups and colloquia in which recent developments in physical metallurgy will be critically reviewed. A large part of the time will be devoted to advanced practical work designed to promote further discussion on selected topics.

Preference will be given to men sponsored by their employers, but a number of senior awards are available for independent candidates each year. The fee for a full-time Postgraduate course of study is £50 per annum.

The 1953–54 session will be divided into five courses, each of five weeks' duration, as follows:

Oct. 5–Nov. 7. Course I—Metallurgical Techniques.
Nov. 9–Dec. 12. Course II—Deformation of Metals.
Jan. 11–Feb. 13. Course III—Solidification of Metals.

Feb. 15–March 20. Course IV—Physical Metallurgy of Heat-treatment.

April 26–May 29. Course V—Theory of Alloy Steels.

Enquiries may be addressed to the Professor of Physical Metallurgy, The University, St. George's Square, Sheffield, 1.

APPOINTMENTS VACANT

METALLURGIST. Imperial Chemical Industries, Ltd., Billingham Division, has a vacancy for a research metallurgist. Candidates should be between the ages of 23 and 35, and have a good Honours degree in metallurgy with post-graduate experience in research or productive industry. The work is in the field of physical metallurgy, and the post gives scope for carrying out complete investigations of very varied character. Adequate technical assistance and equipment will be provided. Publication of results will be encouraged. Write, giving full details, to the Staff Manager, Imperial Chemical Industries, Ltd., Billingham Division, Billingham, Co. Durham, quoting ref. no. A.3.

QUALIFIED ANALYTICAL CHEMISTS required for Assay Laboratory of the Northern Rhodesian Copper Mine. Starting basic salary £68 per month plus fluctuating cost of living allowance, now about £7 per month. Life assurance and contributory pension scheme. Cash bonus scheme which at present rate is equal to 65% of basic salary. Outward passage paid. Apply giving full details of age, marital status, qualifications, and experience to Box 196, Dorland Advertising, 18/20 Regent Street, London, S.W.1.

UNIVERSITY OF BIRMINGHAM

Department of Industrial Metallurgy

Applications are invited for the position of Investigator to carry out research on: Elastic Properties of Spring Materials. The salary will be in the range £300 to £600 per annum, depending upon qualifications and experience. Candidates should possess a degree in Metallurgy, Physics, or Engineering or equivalent qualification. The research will be appropriate for a candidate for a higher degree.

Applications should be submitted as soon as possible to: The Registrar, The University, Birmingham, 15.

C. G. BURTON,
Secretary.

UNIVERSITY OF QUEENSLAND

Applications are invited for the position of Lecturer (grade II) in Physical Metallurgy. Salary £A971 10s./£A1096 10s. p.a.

Applicants must hold a degree, preferably with honours either in science with metallurgy as a major subject or in metallurgical engineering. Some applied or research experience in physical metallurgy is desirable. Further particulars and application forms are obtainable from the Secretary, Association of Universities of the British Commonwealth, 5 Gordon Square, London, W.C.1. Applications should be sent to the undersigned as soon as possible after the appearance of this advertisement.

C. PAGE HANIFY,
Registrar.